DX LISTENING DIGEST 1-024 February 21, 2001 edited by Glenn Hauser, wghauser@hotmail.com

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http://www.angelfire.com/ok/worldofradio/Dxldmid.html

[NOTE: If you are a regular reader of DXLD, and a source of DX news but have not been sending it directly to us, please consider yourself obligated to do so. Thanks, Glenn]

WORLD OF RADIO 1070:

(SUMMARY) http://www.angelfire.com/ok/worldofradio/wor1070.html (DOWNLOAD) http://www.angelfire.com/ok/worldofradio/wor1070.rm (STREAM) http://www.angelfire.com/ok/worldofradio/wor1070.ram

[Note: we include these links in the first DXLD after each WOR broadcast, but you do not need to wait for this notice; audio and summary normally are posted UT Thursdays sometime between 0100 and 0400]

OUR CURRENT AUDIO:

http://www.angelfire.com/ok/worldofradio/Audiomid.html

** ALASKA. Subject: [EWAR] HAARP power increased; tie-in with antimissile tests and massive Russian...

I'd like to request reports from radio amateurs and short wave listeners on this current HAARP increased-power signal. Please specify your lat/long (or city), times (Z times preferred), relative signal strengths, and any related observations or phenomena. Marshall Smith tells me he is also planning to post further information to http://www.brojon.com on his .9 Hz measurements. We need further reports from other researchers to corroborate and update these important observations.

Posted with permission from Marshall Smith, 02/17/01: http://geocities.com/brojongazette/frontpage/bj0201.html

HAARP TRANSMITTER NOW RUNNING AT FULL POWER Can be Easily Heard Around the World on Shortwave Radio

-BJNews by Marshall Smith

As of this morning, Saturday Feb 17, 2001, HAARP began doing testing with greatly increased FULL power. The transmitter can now be

heard all day long on 3.39 MHz. Very early this morning about 3 AM, HAARP could be heard at its "old" normal signal strength. About 4 AM the signal changed in both its pulse timing and inter-pulse spacing. At 4:30 AM the signal strength suddenly increased tremendously.

Unlike previous mornings, there was no regular F-layer [D-layer? -gh] daytime fadeout when the sun rose here in California about 6:45 AM. I continued to monitor during the daylight. I have never heard the HAARP signal during the daytime before. The sun rises in Gakona Alaska about 10 AM PST. The received signal again increased from about S5 to S9 at 10:05 AM. With sunlight at both the transmitter and receiver there is no F-layer skip to bend the signal around the planet. This means this is an extremely powerful direct groundwave signal. And I`m only receiving the leakage off the sidelobes of the antenna array.

The full HAARP design power is supposed to be about 350 Megawatts. But that is only the published spec, not necessarily what is done in practice (as in those CB'rs running illegal 1 Kwatt linear amplifiers). There is a planned Air Force "Star Wars" test with two vehicles, one from California and the other in the south Pacific, similar to last summer's failed test. The tentative published launch is set for late March or April. I will monitor HAARP to confirm it is running full power during the launch, as it was last summer.

Last summer's "failure" is exactly what a HAARP device is supposed to do; destroy the electronic controls of a vehicle so the second stage cannot separate from the booster. A very cheap, simple way to knock down missiles launched from anywhere on the planet. It also can destroy military satellites in low orbit. Maybe that's why the Russians and Chinese have been complaining in the last several weeks about Bush's intention to "build" the star wars system. Maybe they've been losing some of their "secret hardware." But of course, they won't say that in public.

It's now 11 AM PST, on Saturday the 17th, and the signal is blasting in with the powerful pre-pulse tone around S+20 and the main signal about S9. The signal varies 3 to 6 db over a series of several pulses. Since this is not due to F-layer skip fading, I must assume they are slewing the beam of the antenna in various directions, and thus changing the amount of the sidelobes in this direction. This must be a test of a simulated space warfare game with multiple targets. Rapid slewing of the antenna in just a matter of a minute or two is not useful for submarine communication, nor for their stated purpose of doing "ionospheric research."

To show the HAARP signal is abnormally large, at this time, the 80 meter band is silent and WWV at 5 MHz cannot be heard, as would be

expected during the daytime. WWV at 10 MHz is barely heard but does not even register on the S meter. Tuning back to 3.39 MHz, the S meter jumps off the top of the scale. Even Russian woodpeckers never did that, and they were aimed along the ground not out into space. I have no way to estimate how many Gigawatts that represents.

It may be only coincidence but just several days ago, Russia announced it will be conducting a massive space war game, including the launch of numerous missiles, from both ground sites and submarines. Of course this is only a coincidence. You Think. Check out the details in Bill Gertz's article Russian forces conduct massive war-games exercise

http://washingtontimes.com/national/default-2001215225141.htm And then don't forget you read it first in BroJon Gazette.

For more information about HAARP, how the transmitter works and to hear what the transmitter sounds like, go back to the front page http://www.brojon.com article about the HAARP facility and follow the links there.

Copyright © 2001 BJNews & TeddySpeaks Foundation, Inc. To respond to this story email BROTHER JONATHAN GAZETTE. If you want to say something nice, we might read it. If you only want to bitch then we'll will toss it without reading. BJNews is not responsible for the world situation nor your response to it (via Wes Thomas, Feb 17, EWAR via Kevin Redding, nrcfmtv via WORLD OF RADIO 1070, DXLD)

** ARGENTINA. 6440: Radio Luz del Mundo, (the stn discovered by Carlos Buscaglia & reported by Nicolas Eramo & Horacio Nigro). I spoke on Feb 20 to the station owner, Mr. Jorge Antonio Daniel who informed me that they are a Christian station broadcasting on SW for around 4 months. They are on the air daily 1000-0500, with 50 watts power in AM mode. On MW they`re on 1130 kHz as well as on 3220, but not traced there. Their correct address is: Catamarca 2560, 1847-Rafael Calzada (BA), Argentina, and he promised answer to the reports received (Gabriel Iv·n Barrera, Argentina, Feb 21, Cumbre DX via WORLD OF RADIO 1070, DXLD)

** BRAZIL. HOR;RIO DE VERVO. A partir de hoje, dia 18 de Fevereiro, encerra-se o Hor·rio de Ver"o, assim os seguintes estados voltam ao tradicional UT-3: RS/SC/PR/SP/RJ/MG/TO/DF/BA e ArquipÈlago de Fernando de Noronha. InformaÁies sobre os fuso-hor·rios encontrados no Brasil: Site do ServiÁo Nacional da Hora: http://pcdsh01.on.br/(atividade dx via radioexcutas, WORLD OF RADIO 1070, DXLD) I got right in on first try, hearing marker every second, but no minute markers or announcements! Next try Feb 21, not accessible (gh)

** BRAZIL. Glenn, Mohrmann's and Hodgson's unid on 4866.1 is R

Missies da AmazÙnia, Brazil. Early morning transmissions seem to originate from Rede Boas Novas in Man·us and/or PÙrto Velho. Helpful info found at http://www.rbn.org.br/noshist.htm (Henrik Klemetz, Sweden, DX LISTENING DIGEST)

4866.1 has been identified by Henrik Klemetz as Missies da AmazÙnia, Obidos relaying Radio Boas Novas, AM 660 from Porto Velho. The audio clips at - http://homepages.together.net/~hackmohr/Unid4866(1).rm - http://homepages.together.net/~hackmohr/Unid4866(2).rm both contain "Radio Boas Novas" IDs. His query to the "radioescutas" Internet list and information he found from the "RBN" Webpage at http://www.rbn.org.br/noshist.htm, and the "Exodus 13" Webpage at - http://www.exodus13.com.br/radios/index.htm show that the AM outlet in Porto Velho on 660 kHz is Radio Boas Novas and that along with Missies da AmazÙnia in Obidos on 4865 kHz, they are both affiliated with the Rede Boas Novas operated by the AssemblÈia de Deus religious organization. Rede Boas Novas also transmits the "Jesus Sat" satellite TV programming, which has also been relayed on Missies da AmazÙnia. Thanks to Henrik for searching out all of the above information. (Mark Mohrmann, VT, DX LISTENING DIGEST)

** CAMBODIA [non]. New opposition radio broadcast observed

The new weekly radio broadcast by supporters of the opposition Sam Rangsi Party was observed on 17 February on 15455 kHz from 1000-1100 gmt. The radio identified itself as "Voice of Justice" (Cambodian: Vitthayu Samleng Yuttethoar) and described the transmission as a "test broadcast". No indication was given as to where the broadcast was being transmitted from.

The programme commenced with a short piece of traditional music followed by the announcement: "nih chea ka phsay sak l'bong ney satthani vitthayu samleng yuttethoar" ("This is the test broadcast of the Voice of Justice radio station").

This was followed by a news bulletin covering Cambodian and international items. The Cambodian news items concerned a 26 January complaint by the Sam Rangsi Party general secretary Eng Chhai-eang to the interior ministry on threats against its members; a report that former Khmer Rouge soldiers in Anlung Veng had been pressurized into joining the Cambodian People's Party; a report on the arrest of reporters and human rights activists following an armed clash in Phnom Penh in November; a report that rice donated by the World Food Programme for people in Anlung Veng had been sold at market.

The news was followed by a feature on Cambodian society - announcerread questions and answers by Sam Rangsi on the cause and effect of flood due to logging. The broadcast concluded with a press review citing articles from various newspapers including Moneakseka Khmer's 29 January issue on the threat by Cambodian People`s Party against Sam Rangsi Party activists. Source: BBC Monitoring research 17 Feb 01 (via WORLD OF RADIO 1070, DX LISTENING DIGEST)

** CAMBODIA [non]. Hi, I got a really nice and interesting reply from Tioulong Saumura (Ms.), who is in charge of the radio broadcasting for her party, Sam Rainsy Party, and also a member of Parliament in Phnom Penh, Cambodia. She wrote: "Maybe we should have a 10 minute-condensed programme out of our 60 minute-programme for non-Cambodian speakers such as you. I shall submit the idea to my party leaders". website: http://www.samrainsyparty.org email: samrainsy@bigpond.com.kh
She also writes: "I thank you for the very useful report of our broadcasting", so I consider it as a kind of confirmation, even if there are no details in it. 73 and best wishes from (Bj^rn Fransson on the island of G^tland, Sweden, Feb 21, WORLD OF RADIO 1070, DX LISTENING DIGEST)

** CANADA. Our friend JosÈ Moura was interviewed by Suzana Puga during the Spanish program on RCI last Sunday. According to her, RCI plans to resume transmissions in Portuguese to Brazil. We'll have to wait and see (Denis Zoqbi, Brazil, radioescutas Feb 20, translated by gh for DXLD) There has been some kind of spat between the two countries, Canada banning Brazilian beef for unfounded mad cow fears, I gather. Have we heard anything about this on the US media? (gh)

** EL SALVADOR. Salvadorean AM-FM & TV List. Hello Friends: Just I have updated my page about Salvadoran radio & TV stations. http://www.geocities.com/capecanaveral/lab/7104 or the shorter http://www.geocities.com/hmolina.geo "saludos" fron the "quaked" El salvador (Humberto Molina, Feb 21, amfmtvdx via DXLD)

** GERMANY. WESTDEUTSCHER MEMORIES "I read your remarks on your first TA reception in 1977, WDR on 1586. In the late 70's they changed the pattern on AM in Europe, then it became 1593 with a giant 800 kW signal at night time. This frequency was closed in the early 90's. I regretted it, because it always kept contact to home when I was on vacation. I heard from people that this WDR frequency could even be heard in South Africa, regularly at night. I am living about 20 miles away from the transmitter site. About 2 years ago, during repair work(!), the whole antenna construction was destroyed. They rebuilt the whole site, now transmitting on 720 kHz with only 60 kW, but want to upgrade again to 250 kW later this year. BTW, TA reception has become tough in Europe as well, I am glad when I can pick up a tiny signal from the East Coast once a year. Best regards from a European

AM listener." [Ingolf Schulte, Duesseldorf, Germany, NRC International DX Digest via DXLD]

I also have fond memories of WDR-1586. It was the most reliable European MW DX I had during my year in Nakhon Ratchasima, Thailand, 1969-1970 -- and one of the most distant. Many a morning it was in on my HQ-160 (Glenn Hauser, DX LISTENING DIGEST)

** ICELAND. Hi Glenn: I heard both RUV channels 1 and 2 on the 189 kHz LW relay this morning. Reception was quite a bit better than yesterday. So evidently, they switched over from 1 to 2 around 0700, after the news, which is the same for both. I have sent them an email inquiring about the longwave program schedule. If I get a response, I'll forward it to you. I should say a few words about Icelandic radio from a foreigner's point of view. I lived in Iceland for a while about 8 years ago. I worked at Thingvellir national park, and a remote farm on the South coast. There, we took care of 275 sheep, 8 horses, and about 40 head of cattle 18 or so of which were milk cows.

In Iceland, radio much more then TV, plays a big part of daily living, especially out in the country. Sometimes in the winter, entire sections of the island are cut off from the capital, because of heavy snows. Volcanic eruptions, earthquakes, blizzards, and gale force winds are not uncommon. Radio is the main link which ties people together in a beautiful, but sparse and sometimes hostile land. It is rather difficult to put into writing to what a subtle degree the radio service plays in day to day living in Iceland. Perhaps that is because the radio service has been shaped by the national character of the Icelandic people. So I can say that, hearing this longwave relay is a real treat for me; more so than the SW broadcasts which are rather short, and mainly consist of only news. -(David Hodgson, TN, Feb 21, WORLD OF RADIO 1070, DX LISTENING DIGEST)

** IRAN [and non]. Iranian Clandestine Signals monitored in Tasmania within non-standard allocations. There is another signal also in Farsi which has popped up regularly on 10080 kHz between 2100 and 2200 GMT. Unlike the other signal monitored within the HF aeronautical allocation on 8850, this station appears to be a variation of the numbers station and gives out sentences which are then repeated. There are two announcers, one male and one female. The male reads out the sentences for approximately 15 minutes and is followed by a female after a pause of 30 seconds to a minute. She then reads out what appears to be numbers.

Also there are several bubble jammers co-channel. The former station within the 8 MHz aero band does appear to be a clandestine broadcast

as there is music interspersed with slogans and speeches. Transmissions are usually short around 10 minutes and also do not appear to adhere to a regular schedule with daily variations in time and frequency used whilst the spy station does seem to stick to 10080 at around 2130z until today (February 20th) when I heard them on 8600 at 2127z. All are using DSB. There was no sign of the clandestine broadcaster either on 10080.

** PAPUA NEW GUINEA. ``KBBN``: According to Deborah Wells, they haven`t really made any progress towards getting their shortwave on the air. KBBN still hopes to be on shortwave by July. PANGTEL has told them that the 3200-3400 range is crowded, but that they will try to coordinate a possible frequency 10 kHz to 15 kHz down from 3205 kHz. They are also looking at the 2300-2500 and 3900-3950 kHz ranges (via Hans Johnson, Cumbre DX Feb 22 via DXLD)

** SEYCHELLES. Source: FEBA Radio. Comments: FEBA Radio is a Christian evangelical broadcaster and is an autonomous member of FEB Radio International, which includes the Far East Broadcasting Company (FEBC). FEBC also operate similar radio stations in the Philippines, Saipan and South Korea and elsewhere.

Languages: Amharic, Arabic, Assamese, Azeri, Badaga, Balti, Baluchi, Bengali, Bhili, Bhojpuri, Brahui, Chattisgarhi, Dari, Dhivehi, Dinka, Dzonkha, English, French, Gujarati, Guragena, Hazaragi, Hindi, Hindko, Kannada, Konkani, Magahi, Makonde, Malayalam, Marathi, Marwari, Mundari, Nagpuria, Nepali, Nuer, Oriya, Oromo, Pashto, Persian, Portuguese, Punjabi, Sindhi, Sinhala, Siraiki, Somali, Swahili, Tamil, Telugu, Tibetan, Tigrinya, Tsangla, Tulu, Urdu, Uzbek

Address: FEBA Radio, Ivy Arch Road, Worthing BN14 8BX, UK Tel: +44 1903 237281 Fax: +44 1903 205294

E-mail: reception@feba.org.uk Web Site: http://www.feba.org.uk

0345-0400F.	ENGLISH	Af	Ter: 11.885
0815-0845F.	ENGLISH	As	Ter: 15.460
1245-1300Sa	ENGLISH	ME	Ter: 15.535
1445-1500F.	ENGLISH	As	Ter: 11.600
1500-1600Sa	ENGLISH	As	Ter: 11.600
1530-1545ThF.	ENGLISH	As	Ter: 11.600
1530-1600 SuMTuW	ENGLISH	As	Ter: 11.600
1630-1700 Su	ENGLISH	As	Ter: 11.605

(© BBC Monitoring Feb 21; English only excerpted for DXLD)

** SWITZERLAND. A little bit of history might not go amiss here. When I started listening in the late 60's there was plenty of Swiss Country Music on SRI, or rather SBC as it then was. Indeed, I recall that they used to play continuous blocks of it to fill 15 or 30 minute gaps between programmes in the various languages. In those days, the bands were less crowed, and here in Europe SBC came in with fantastic signals and was notable for its superb audio quality, with a lot of bass that sounded great on an old tube radio. But times moved on. The bands became more crowded and they started using audio compression. Great for speech, but disastrous for music. Then new management took over, and decided that SRI would become primarily a news and information service, rather than an entertainment service. I recall that one of the reasons given was that "we want to show that there's more to Switzerland than cheese, chocolate and cuckoo clocks". Larry Nebron, who like me knows Bob Zanotti of SRI very well, can take up the story from there :-) (Andy Sennitt, swprograms via DXLD)

** TAIWAN. RADIO TAIPEI INTERNACIONAL PRESENTA UN NUEVO CONCURSO PARA SUS OYENTES: "A travÈs de sus cartas hemos podido apreciar las dotes artÌsticas de nuestros oyentes. Por eso el Equipo EspaÒol de CBS-Radio Taipei Internacional ha preparado un nuevo concurso de dibujo para premiarles por su arte y dedicaciÛn. Para participar en el concurso, tienen que enviarnos un dibujo o pintura de ustedes mismos en una hoja de tamaÒo Din-A 4 (hoja oficial). La fecha lÌmite de recepciÛn de las participaciones ser· el 30 de abril de este aòo. Los 10 mejores recibir·n un premio especial de la emisora y todos los dem·s participantes tambiÉn recibir·n un recuerdo. Por cierto, no se olviden de escribir su nombre, apellidos y direcciÚn en el dorso de la hoja donde aparezca su autoretrato. Recuerden, esperamos sus cartas antes del 30 de abril del aòo 2001. Asì que ya lo saben, °°°pÛnganse delante del espejo y a pintar!!! Favor de enviar sus obras a la siguiente direcciÛn: CBS-Radio Taipei Internacional, P. O. Box 24-38 Taipei, Taiwan 106, ROC. RTI: cbs@cbs.org.tw Visite a RTI en: http://www.cbs.org.tw (Patricia Lin, Radio Taipei Internacional via Gabriel GÛmez, "RadioMundo" 10, DX Club Montevideo, Uruguay via

ConexiÛn Digital via DXLD)

A contest, deadline April 30, draw or paint your own portrait. I looked around the English section of their website and could not find anything about it; but not sure if it is limited to Spanish service of RTI (Glenn Hauser, WORLD OF RADIO 1070, DXLD)

** U S A. Glenn, I just heard (20 Feb 2001) WEWN broadcasting on a test frequency of 17575 kHz at 2300-0000 UT. They said they were targeting the African continent. I am roughly straight NNE of them in New Jersey and I probably shouldn't get them as well (SINPO 45544) as I did. I haven't heard a signal that strong since the VOA left their Piscataway (NJ) transmitter site (5 miles from my home) some 40 years ago. I am relatively new to the hobby so maybe there is something going on that I don't understand? (Richman, DX LISTENING DIGEST)

** U S A. I just got off the phone with Tracy Teagarden, CE for all the Infinity stations in Las Vegas. Besides KSFN-1140, those include KLUC, KMXB. KMZQ, KXNT, and KXTE. He says the signal on 1136-37 kHz isn't them but a pirate or other unauthorized relay of their signal! He says he is able to hear it in the nulls of their nighttime directional array and that it appears to be somewhere west-southwest of the Las Vegas metro area. While he was on the phone, I let him listen to the signal live via my R8/Quantum Loop combo and also played the tape I made yesterday. We agreed that this isn't your runof-the-mill pirate; the signal is just too strong. We must be talking kilowatts here and a good ground system to propagate such a strong groundwave signal across the dry, rocky desert between me and Las Vegas. Now this is where it gets a little weird. I asked Tracy if --based on the strength of this signal and the fact this pirate didn't appear too worried about attracting attention---this "pirate" might actually be some sort of military test or experiment from the facilities scattered throughout the Mojave.

He replied that "sometimes in the past they've relayed some local stations over at S4." ("S4" is the top-secret Papoose Lake facility located to the south of the famous Area 51.) However, Tracy said that when they've complained about prior relays to the FCC, they've been told "not to worry about it" if the relay was part of a government project or experiment. He said the FCC didn't say that this time and is treating this as a civilian "pirating" case. Tracy further said the signal left the air around midnight PST last night and also transmits FSK signals and triangle waves! To me, those latter two items seem to indicate this must be some sort of government test instead of a pirate -- maybe the FCC hasn't been alerted by The Secret Government???

There are all sorts of candidates for the location; between me and

Las Vegas are the Nevada Test Site, Fort Irwin, my semi-local China Lake Naval Weapons Center, etc. All would agree with my loop bearings. S4, Area 51, etc., are too far north if my bearings are reliable. A military test would also explain such oddities as Pat Griffith's reception of CHRB on 1141 last night. Tracy really sounded stressed over this. He said he's busy enough with his normal job responsibilities without this headache. We have a strange one here, folks! Damn, I feel like I've been possessed by the spirit of C. M. Stanbury! (Harry Helms, AK6C, Ridgecrest, CA, Feb 20, NRC-AM via DXLD)

** U S A. The mystery signal, including the off-frequency KSFN-1140 relay, is gone here. I listened to it until a little after 11:30 pm last night. It was not there when I checked this morning and hasn't returned throughout the day. All I hear on 1140 now is KQAB with KSFN underneath.

I spoke to Tracy Teagarden, CE for KSFN and the rest of the Infinity stations in Las Vegas, a few minutes ago and he was surprised to learn the station had vanished (he says they could only hear it at night in the nulls of their pattern). Tracy sounded relieved to know the relay has stopped! He said there was a loss of power to the Infinity transmitters in Las Vegas shortly after midnight last night for about five seconds before they returned to the air. Did this have anything to do with the disappearance of the mystery signal? Your guess is as good as mine!

Tracy gave me a bit of a personal DX test in our call. He switched to night power/pattern while I patched the R8's audio into the phone, and he was impressed to still hear his signal under KQAB because I am in his night null. I told him that kind of reception is par for the course when your receiver is a Drake! Tracy said he has heard nothing from the FCC since they made their complaint about the relay. He remarked that the FCC didn't seem too concerned about the relay. We both agreed this was a good indication that Uncle Sam's boys were behind it.

I tried to reach John Winston at the FCC's Enforcement Bureau in Washington and Charles Craig, head of the Bureau's western office in Pleasanton, CA, today by phone to ask about the signal but neither have returned my calls. For some reason, I don't expect they ever will. It looks like our big mystery has bit the dust, at least in the west. Anybody still hearing something in the east? 73, (Harry Helms AK6C Ridgecrest, CA, Feb 21, NRC-AM via DXLD)

** U S A. Need assistance from the group in solving interference to WBCQ1 on 7.415 during the daylight hours [sic]. I have heard it on that frequency at around 0400-0600. The interference is on 7.414 USB

in digital code bursts with an ID in standard CW. I have been told it is DRH and KPH but no locations are known. KPH is listed as a maritime commercial station in San Francisco, California. Any one out there have any further clues??? (Stewart H. MacKenzie, CA, WDX6AA, Electronic DX Press via DXLD)

There was continuous interference like this during WOR at 0030 UT Thursday and has been for some time (gh, OK, DXLD)

** U S A. WWV Survey Planned by NIST

NEWINGTON, CT, Feb 20, 2001--The National Institute of Standards and Technology plans to survey users of WWV and WWVH later this year. The time and frequency-standard stations have been airing occasional announcements about the upcoming poll in order to start building a mailing list of survey recipients. The announcements state that NIST "is seeking information on how listeners use the broadcast services offered on the WWV broadcast," but the survey will not begin for at least several weeks.

WWV Station Manager John Lowe says the announcements are being broadcast now as a heads up and to encourage early signups for the agency's survey mailing list. The survey itself will not be ready for release until it's been approved by the Office of Management and Budget, Lowe said. He doesn't expect that to happen until May, although he said the surveys could be ready sooner. He said the survey period likely would extend through the summer.

According to Lowe, the last WWV-WWVH user survey was done in 1985. "We just don't know who our user base is anymore," he said. Lowe confirmed that the data collected ultimately could be used to determine whether WWV and WWVH remain on the air--especially given the popularity of NIST's other outlets, including its Web-based time server that gets in excess of 3 million hits a day.

"If we get only two people who say they're using WWV, then we've got a problem," he said. Lowe added that he does not think WWV and WWVH will be shut down, and he vowed to "fight for the radio stations," if it came down to that. "But the ultimate decision is not in my hands," he said. "We have to look at our budget and our users."

Lowe strongly encouraged WWV users to get on the mailing list and to send in a survey when the time comes. He suggested, however, that more weight will be given to survey responses from corporate and institutional users of the radio service as opposed to individual users.

To be added to the NIST WWV-WWVH survey mailing list, send your name

and postal address to the NIST Radio Station WWV, 2000 E County Road 58, Ft Collins, CO 80524, or e-mail the information to nist.radio@boulder.nist.gov.

Lowe said WWV-WWVH users should hold their fire until the survey begins. Once OMB has okayed the survey, he said he plans to spread the word through all available means, including the NIST Web site.

WWV in Ft Collins, Colorado, and WWVH on Kauai, Hawaii, broadcast continuous time and frequency information to millions of listeners worldwide. Information broadcast includes time announcements, standard time intervals, standard frequencies, UT1 time corrections, a BCD time code, geophysical alerts, marine storm warnings, and Global Positioning System status reports.

WWV transmits double-sideband AM on 2.5, 5, 10, 15 and 20 MHz using a separate transmitter for each frequency feeding half-wave vertical antennas. WWVH transmits on 2.5, 5, 10 and 15 MHz and uses phased vertical arrays on 5, 10 and 15 MHz.

The WWV call letters were assigned to the National Bureau of Standards (as NIST was then known) in 1919, and the station initiated experimental broadcasts from Washington, DC, in 1920--several months before the historic KDKA broadcasts. Standard frequency transmissions began in 1922; time announcements began in 1945, initially in Morse code, later in voice (ARRL via John Norfolk, OKCOK, DX LISTENING DIGEST)

** URUGUAY. 6140/9595/11735, R Montecarlo/Oriental transmitter has been silent for more than a week now (Horacio A. Nigro, Montevideo - Uruguay, Feb 21, DX LISTENING DIGEST) ####